

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims:

1. (previously presented) A communications network for use with mobile wireless user terminals, said network comprising:

a packet-switched core network;

a plurality of access points within a same broadcast network and coupled to said core network, each said access point providing any said user terminal with communications access to said core network when said any user terminal becomes affiliated with said access point, and including an address resolution protocol cache for storing information representative of affiliation between said user terminals and said access points, and each said access point including means for updating its address resolution protocol cache with an Internet protocol address of a said user terminal when that said user terminal becomes affiliated with said access point, and further including means for issuing an address resolution protocol request which causes other said access points to update their respective address resolution protocol cache to indicate that a said user terminal has changed its affiliation to said access point; and

at least one of a media server, DNS server and an IP gateway router, each including a respective an address resolution protocol cache for storing information representative of affiliation between said user terminals and said access points and is updateable based on said address resolution protocol request.

2. (previously presented) A communications network as claimed in claim 1,
wherein:

said each access point issues said address resolution protocol request over said core
network.

3. (canceled)

4. (canceled)

5. (previously presented) A communications network as claimed in claim 1,
wherein:

said access point with which a said user terminal is affiliated includes a wireless
transceiver for transmitting a received data packet to said user terminal via a wireless
communications link.

6. (previously presented) A communications network as claimed in claim 1,
wherein:

each said access point includes a wireless transceiver for transmitting and receiving data
packets to and from a said user terminal affiliated therewith via a wireless communications link.

Claims 7-9 (canceled)

10. (previously presented) A communications network as claimed in claim 1, wherein:

each said access point provides any said user terminal with communications access to said core network when said user terminal is participating in an ad-hoc network.

11. (previously presented) An access point, coupled to a communications network for providing mobile wireless user terminals with communications access said network, said access point comprising:

a wireless transceiver for transmitting and receiving data packets to and from a said wireless user terminal affiliated with said access point; when said user terminal is participating in an ad-hoc network;

an address resolution protocol cache for storing information representative of affiliation between said user terminals and said access points; and

an affiliation indicator for updating the address resolution protocol cache with an Internet protocol address of a said user terminal when that said user terminal becomes affiliated with said access point, and for issuing an address resolution protocol request which causes other access points within a same broadcast network and coupled to said communications network to update their respective address resolution protocol cache to indicate that said user terminal has changed its affiliation from said another access point to said access point.

Claims 12-16 (canceled)

17. (previously presented) A method of handling mobility of wireless user terminals for use with a communications network including a packet-switched core network and a plurality of access points coupled to said core network, said method comprising:

provide a said user terminal with communications access to said core network via said access point when said user terminal becomes affiliated with said access point;

storing information representative of affiliation between said user terminals and said access points in a respective address resolution protocol cache of each said access point;

controlling said access point to update its address resolution protocol cache with an Internet protocol address of a said user terminal when that said user terminal becomes affiliated with said access point, and to issue an address resolution protocol request to indicate to the other said access points that said user terminal has changed its affiliation from said another said access point to said access point;

updating respective said address resolution protocol caches of the other said access points within a same broadcast network based on said address resolution protocol request to indicate said change in affiliation of said user terminal; and

updating respective address resolution protocol caches of at least one of a media server, DNS server and an IP gateway router of said network based on said address resolution protocol request.

18. (previously presented) A method as claimed in claim 17, wherein:

said controlling step controls said access point to issue said address resolution protocol request over said core network.

19. (canceled)

20. (canceled)

21. (Original) A method as claimed in claim 17, further comprising:

controlling said access point with which a said user terminal is affiliated to transmit a received data packet to said user terminal via a wireless communications link.

Claims 22-24 (canceled)

25. (Original) A method as claimed in claim 17, wherein:

said providing step includes providing said user terminal with communications access to said core network when said user terminal is participating in an ad-hoc network.

26. (previously presented) A method for providing mobile wireless user terminals with communications access to a packet-switched network, said method comprising:

controlling an access point on said packet-switched network to transmit and receive data packets to and from a said wireless user terminal affiliated with said access point when said user terminal is participating in an ad-hoc network;

controlling said access point to store information representative of affiliation between said user terminals and access points on said packet-switched network in an address resolution cache of said access point;

controlling said access point to update its address resolution protocol cache with an Internet protocol address of a said user terminal when that said user terminal becomes affiliated with said access point, and to issue an address resolution protocol request to indicate to other said access points within a same broadcast network and coupled to said packet-switched network indicating that said user terminal has changed its affiliation from said another access point to said access point; and

controlling said other access points to update their respective address resolution protocol cache based on said address resolution protocol request.

27. (previously presented) A method as claimed in claim 26, wherein:

said third controlling step controls said access point to issue said address resolution protocol request over said packet-switched network.

Claims 28-31 (canceled)

32. (canceled)

33. (canceled)

34. (canceled)

35. (canceled)

36. (canceled)

Claims 37-39 (canceled)

40. (canceled)

41. (canceled)

42. (canceled)

Claims 43-46 (canceled)